TECHNICAL DATA SHEET

QM-1s Restore®

TYPICAL PERFORMANCE CHARACTERISTICS

- **Compressive Strength 28 Day**
  (ASTM C39)
  >9,000 psi
- **Flexural Strength (ASTM C293)**
  >1,000 psi
- **Bond Strength (ASTM C882)**
  >1,500 psi
- **Freeze-Thaw (ASTM C666)**
  No visible damage after 300 cycles
- **Permeability (ASTM C1202)**
  350 Coulombs
- **Density**
  132 +/- 5 PCF
- **Shrinkage (ASTM C596)**
  0% @ 28 days

MATERIAL COMPATIBILITY

Structure Guard-QS can be used in a composite system with Quadex Mortar Materials.

CURING

Cure in accordance with current ACI and manufacturer recommendations.

Portland-Based Structural Liner Mortar

DESCRIPTION

QM-1s Restore® is a Portland cement based, single component, high strength, fiber reinforced, shrinkage compensated cement mortar enhanced with a monocrystalline quartz aggregate. QM-1s Restore was designed to structurally repair deteriorated metal, concrete and masonry structures. QM-1s Restore delivers a monolithic one pass vertical surface application up to three inches in thickness by low pressure spraying or centrifugally casting.

RECOMMENDED FOR

Vertical and overhead repairs to concrete or masonry sewer manholes, wetwells, metal pipes, water treatment facilities, tunnels, navigation locks, and dams.

FEATURES AND BENEFITS

- **Quality controlled, one-component blend for uniform results**
- **High early and ultimate compressive, flexural and bond strengths**
- **Resistant to sulfate attack**
- **Low permeability**

PRECAUTIONS

Avoid eye contact or prolonged contact with skin. Wash thoroughly after use. Persons using QM-1s Restore should wear necessary PPE consisting at minimum of eye protection, dust mask and rubber gloves. Read all product labels and technical literature.

QUADEX® A VORTEX COMPANY REPAIR MATERIALS

Distributed By MAXLINER®

VORTEX

WARRANTY

Quadex, LLC warrants its products to be free of defects in material and workmanship. Unless superseded by project specifications and terms agreed upon in writing between installer and Quadex prior to bid, if within one year from purchase, any Quadex, LLC product is proven defective, the company will replace said product or refund its purchase price at its sole discretion. The company's obligation shall be limited solely to such replacement or refund. There are no other warranties by Quadex, LLC, expressed or implied. There is no warranty if Quadex products are used contrary to Quadex, LLC's written directions.

APPLICATION INFORMATION

Prepare surface to be patched by removing unsound concrete, dirt, dust, oil and other debris using high pressure (min 241.3 bar | 3,500 psi) water blasting. Then rinse with potable water to remove all remaining dirt, sand and loose debris. This will provide a clean, damp surface to facilitate bond.

Apply QM-1s Restore by low pressure spraying on vertical or overhead surfaces to a monolithic thickness of 12.7mm – 76.2mm | ½ in. – 3 in. in one pass, trowel to smooth surface.

QM-1s Restore can be top coated with Structure Guard or Structure Guard-QS after 24 hours to perform as a composite system.

PACKAGING/YIELD

European (Production of Material) Metric Units

			25.0MM | 0.98-INCH THICKNESS		
BAG SIZES (KG)	PACKAGING	YIELD PER BAG (M^3)	BAG COVERAGE (M^2)	MASS COVERAGE (KG/M^2)	WATER PER BAG* % BY WEIGHT
20	Plastic Bag	0.013	0.52	39.07	12.0 - 15.0
450	Super Sack	0.293	11.70		

European (Production of Material) Imperial Units

			25.0MM | 0.98-INCH THICKNESS		
BAG SIZES (LBS)	PACKAGING	YIELD PER BAG (FT^3)	BAG COVERAGE (FT^2)	MASS COVERAGE (LBS/FT^2)	WATER PER BAG* % BY WEIGHT
44.1	Plastic Bag	0.46	5.60	8.00	12.0 - 15.0
992.1	Super Sack	10.33	125.95		

North America (Production of Material) Metric Units

			25.0MM | 0.98-INCH THICKNESS		
BAG SIZES (KG)	PACKAGING	YIELD PER BAG (M^3)	BAG COVERAGE (M^2)	MASS COVERAGE (KG/M^2)	WATER PER BAG* % BY WEIGHT
27.2	Mulit-Wall Paper Bag	0.017	0.69	39.95	9.8 - 12.8
453.6	Super Sack	0.288	11.53		

North America (Production of Material) Imperial Units

			25.0MM | 0.98-INCH THICKNESS		
BAG SIZES (LBS)	PACKAGING	YIELD PER BAG (FT^3)	BAG COVERAGE (FT^2)	MASS COVERAGE (LBS/FT^2)	WATER PER BAG* % BY WEIGHT
60	Multi-Wall Paper Bag	0.61	7.45	8.18	9.8 - 12.8
1000	Super Sack	10.18	124.16		

*Due to natural deviations in the constituent materials, additional water may be necessary on occasion. Applicators are trained to adjust as needed based upon field performance of the product.